

10/711,185

IN THE CLAIMS:

Please substitute the following claims for the same-numbered claims in the application:

1. (Currently Amended) A laminated conductive interconnection for joining an integrated circuit device to a device carrier, said conductive interconnection comprising:
a laminated structure comprising alternating metal layers and polymer layers between said integrated circuit device and said device carrier,
wherein said laminated structure comprises one of a substantially cube-shaped structure and a substantially cylinder-shaped structure and wherein said laminated structure bonds and electrically connects said integrated circuit device to said device carrier.
2. (Original) The laminated conductive interconnection in claim 1, wherein said polymer layers include metal particles.
3. (Canceled).
4. (Original) The laminated conductive interconnection in claim 1, wherein said alternating metal layers and polymer layers are substantially parallel to said device carrier and said integrated circuit device.
5. (Original) The laminated conductive interconnection in claim 1, wherein said alternating metal layers and polymer layers are substantially perpendicular to said device carrier and said integrated circuit device.
6. (Original) The laminated conductive interconnection in claim 1, wherein said polymer layers comprise a thermoset polymer.

10/711,185

7. (Original) The laminated conductive interconnection in claim 1, wherein said polymer layers comprise a thermoplastic conductive adhesive.

8. (Currently Amended) A conductive interconnection for joining an integrated circuit device to a device carrier, said conductive interconnection comprising:

a polymer having a spherical shape between said integrated circuit device and said device carrier; and

metal projections extending towards said polymer from at least one of said integrated circuit device and said device carrier,

wherein said metal projections each have a same height and extend partially into said polymer across the width of said polymer.

9. (Original) The conductive interconnection in claim 8, wherein said projections have a triangular shape in cross-section.

10. (Original) The conductive interconnection in claim 8, wherein said projections have a cone-shape.

11. (Currently Amended) The conductive interconnection in claim 8, wherein said projections extend from both said integrated circuit device and said carrier.

12. (Original) The conductive interconnection in claim 8, wherein said polymer includes metal particles.

13. (Original) The conductive interconnection in claim 8, wherein said polymer comprises a thermoset polymer.

10/711,185

14. (Original) The conductive interconnection in claim 8, wherein said polymer comprises a thermoplastic conductive adhesive.

15. (Currently Amended) A conductive interconnection for joining an integrated circuit device to a device carrier, said conductive interconnection comprising:

 a polymer having a spherical shape between said integrated circuit device and said device carrier; and

 dendrites within said polymer, wherein said dendrites comprise a plated coating on a conductive material.

16. (Currently Amended) The conductive interconnection in claim 15, wherein said dendrites comprise a plated coating of palladium on a conductive material.

17. (Original) The conductive interconnection in claim 15, wherein said dendrites have an irregular pattern within said polymer.

18. (Original) The conductive interconnection in claim 15, wherein said polymer includes metal particles.

19. (Original) The conductive interconnection in claim 15, wherein said polymer comprises a thermoset polymer.

20. (Original) The conductive interconnection in claim 15, wherein said polymer comprises a thermoplastic conductive adhesive.

21. (Original) A conductive interconnection for joining an integrated circuit device to a device carrier, said conductive interconnection comprising:

10/711,185

a polymer having a spherical shape between said integrated circuit device and said device carrier; and

micelle brushes on the outer surface of said polymer,

wherein a first end of said micelle brushes has an affinity for said polymer so as to attach said first end to said polymer and a second end of said micelle brushes has an affinity for metal surfaces so as to attach said second end to said integrated circuit device on one side of said polymer and said device carrier on another side of said polymer.

22. (Original) The conductive interconnection in claim 21, wherein said micelle brushes comprise a reactive moiety with an organic tail.

23. (Original) The conductive interconnection in claim 21, wherein said polymer includes metal particles.

24. (Original) The conductive interconnection in claim 21, wherein said polymer comprises a thermoset polymer.

25. (Original) The conductive interconnection in claim 21, wherein said polymer comprises a thermoplastic conductive adhesive.